The following Pages include information on the construction of the Scan Line, samples of substitute forms, Check Digit Verification (CDV) and other miscellaneous information.

Prior to approval, five (5) samples are required. They may be sent to:

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The preprinted NJ-W-3 returns are printed front and back. The Division of Revenue's remittance processor reads and captures both sides simultaneously. Therefore duplex printing is also required of facsimiles to gain approval.

This form *must be* printed on the bottom of an 8 ½" by 11" sheet of paper that will include a dotted line for cutting the form to a size of 8 ½" by 3 2/3". The purpose is to have uncut, straight edges on the bottom and sides of the form to speed processing.

The following fields are required to be printed on all vouchers in the specified locations:

- Filing Year Print Line 50, Begin Print Position 8, length is 4 bytes.
- Due Date Year (filing year plus 1) Print Line 50, Begin Print Position 74, length is 4 bytes.
- Federal ID# Print Line 51, Begin Print Position 10, length is 15 bytes (includes "-" and "/", should be formatted as 999-999/000).
- Name Control Print Line 51, Begin Print Position 28, length is 4 bytes. Name Control is the first four letters of the company's name (no spaces).
- Taxpayer Name Print Line 54, Begin Print Position 10, and length cannot be greater than 30 bytes.

- Trade Name Print Line 55, Begin Print Position 10, and length cannot be greater than 30 bytes.
- Street Address Print Line 56, Begin Print Position 10, and length cannot be greater than 30 bytes.
- City, State and Zip Code Print Line 57, Begin Print Position 10, length cannot be greater than 30 bytes.
- Line 1, number of employees Print Line 53, Begin Print Position 64 and length is 12 bytes. **Right justify to Print Position 75**.
- Line 2, total income Print Line 55, Begin Print Position 56 and length is 25 bytes. **Right justify to Print Position 80**. No comas or decimal points (example 500.00 would be 50000 and 5,000.00 would be 500000).
- Line 3, total amount withheld Print Line 57, Begin Print Position 57 and length is 21 bytes. **Right justify to Print Position 80**. No comas or decimal points (example 500.00 would be 50000 and 5,000.00 would be 500000).
- Vendor Code (assigned by the NACTP) Print Line 61, Begin Print Position 5, and length is 4 bytes.
- Scan Line Print Line 63, Begin Print Position 23, and length is 28 bytes.
- On the back of the return make sure to place an "X" for the W-2 Filing Method.

The scan line is **required** to be printed using an OCR-A font. The scan line contains 28 characters broken down as follows:

<b>Position</b>	<b>Length</b>	<u>Description</u>
1-5	5	"01151"
6-14	9	FEIN should be 9 digits (no <b>hyphens</b> )
15-17	3	Suffix (if none then '000' (three zeros))
18-18	1	Check Digit (See 1, 3, 7 MOD 10 algorithm attached)
19-22	4	Name Control (First four letters of company's name) No spaces, no apostrophes or periods. The only allowable characters are dash '-' and ampersand '&'.
23-24	2	Year – (e.g. 2003 is 03)
25-26	2	'13'
27-28	2	'10'

## Check digit algorithm (1, 3, 7 MOD 10)

The following conversion values will be assigned to the alphabetic characters:

A 1	E 5	J 1	N 5	S 2	W 6
B 2	F 6	K 2	O 6	T 3	X 7
C 3	G 7	L 3	P 7	U 4	Y 8
D 4	H 8	M 4	Q 8	V 5	Z 9
	Ι9		R 9		'-' and '&' = $0$

Each digit in the scan line (except for the check digit field) is assigned a value. The weights 1, 3, 7 are assigned to each byte of the scan line from left to right.

A product derived for each byte by multiplying the value of the scan line digit to the applied weight. Next all products (sum of the values) are added to get a total product. The total product is divided by modulus 10. The remainder is subtracted from 10 to obtain the Check Digit.

Below is the example of a scan line taken from a NJ-W3 document with calculations to demonstrate the check digit algorithm.

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0 1	1	5	1	9	9	9	9	9	9	9	9	9	0	0	0		6	9	9	2	0	3	1	3	1	0
13	7	1	3	7	1	3	7	1	3	7	1	3	7	1	3		7	1	3	7	1	3	7	1	3	7
03	7	5	3	63	9	27	63	9	27	63	9	27	0	0	0	4	12	9	27	14	0	9	7	3	3	0

The first line is the original scan line with CD,

The second line shows letters converted to numeric value,

The third line shows applied weights and

The fourth line is the product.

#### **Sum of Products**

= 0+3+7+5+3+63+9+27+63+9+27+63+9+27+0+0+0+42+9+27+14+0+9+7+3+3+0

Total product 429

Divide by 10 42.9

Subtracting the remainder from 10 gives the Check Digit: 10 - 9 = 1

Check Digit = 1

If the remainder is zero the check digit is zero.

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